



Peabody Square Improvement Project



JUDITH
NITSCH
ENGINEERING
INC.

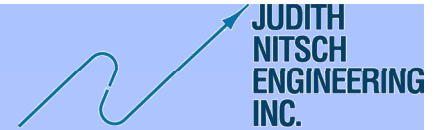


City of Boston

Thomas M. Menino, Mayor



Peabody Square Improvement Project



Project Team

City of Boston

Vineet Gupta, Director of Planning, BTB

Ralph DeNisco, Project Manager, BTB

Para Jayasinghe, City Engineer, BPWD

Design Team

Judith Nitsch Engineering, Inc.

Jerry Blumenthal, P.E.

Phil Viveiros, P.E., P.T.O.E.

Carol R. Johnson Associates, Inc.

Chris Jones, A.S.L.A.





Peabody Square Improvement Project

Agenda

6:30

- Ø Peabody Square Public Art Committee
- Ø Review of Project Area/Schedule
- Ø Major Community Concerns (1 st meeting)

7:00

- Ø Design Refinement – Two Alternatives
- Ø Traffic and Urban Design Analysis
- Ø Palette of Materials

7:30

- Ø Public Input/Discussion
- Ø What's Next





Peabody Square Improvement Project

Design Area



Peabody Square Improvement Project

Project Schedule



Preliminary Design (25%)

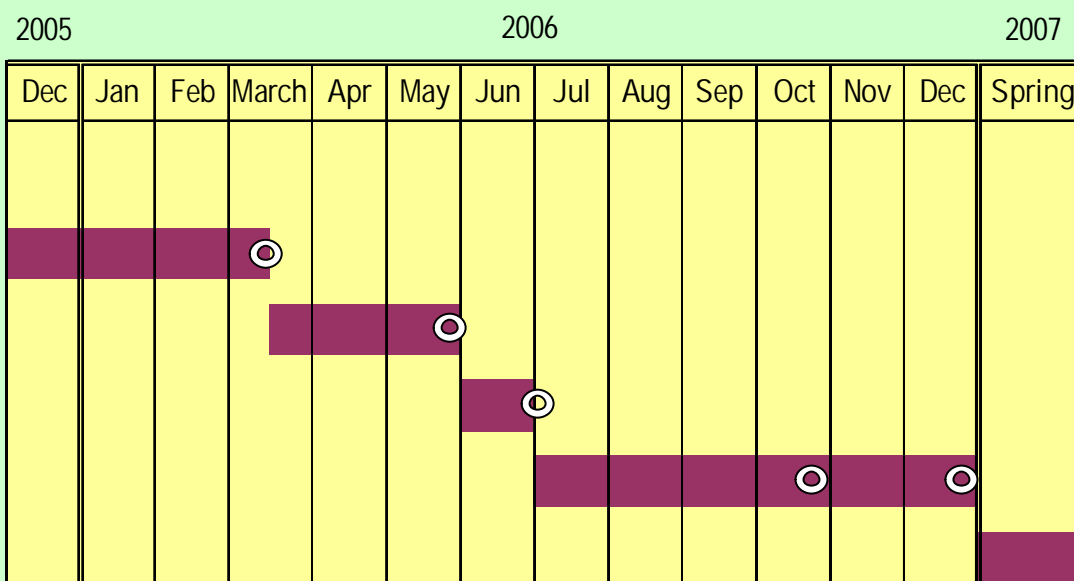
Data Collection & Analysis

Refinement of Alternatives

Preliminary Design (25%)

Final Design (100%)

Construction



○ --- Public Meeting

Ongoing Coordination with Dot Ave. Task Force & Artist





Peabody Square Improvement Project

Major Concerns from the 1st Public Hearing

- Keep I-93 bound traffic on Dot Avenue, eliminate Ashmont Street eastbound (cut-through) move
- Enlarge study area/one-way street operation
- Curbside truck loading
- Under the X Scheme, keep Ashmont Street eastbound connection
- Excessive vehicle speed in neighborhood
- Include bus pull-offs
- Enforce parking regulations





Peabody Square Improvement Project

Steps Taken (since 1st Meeting)

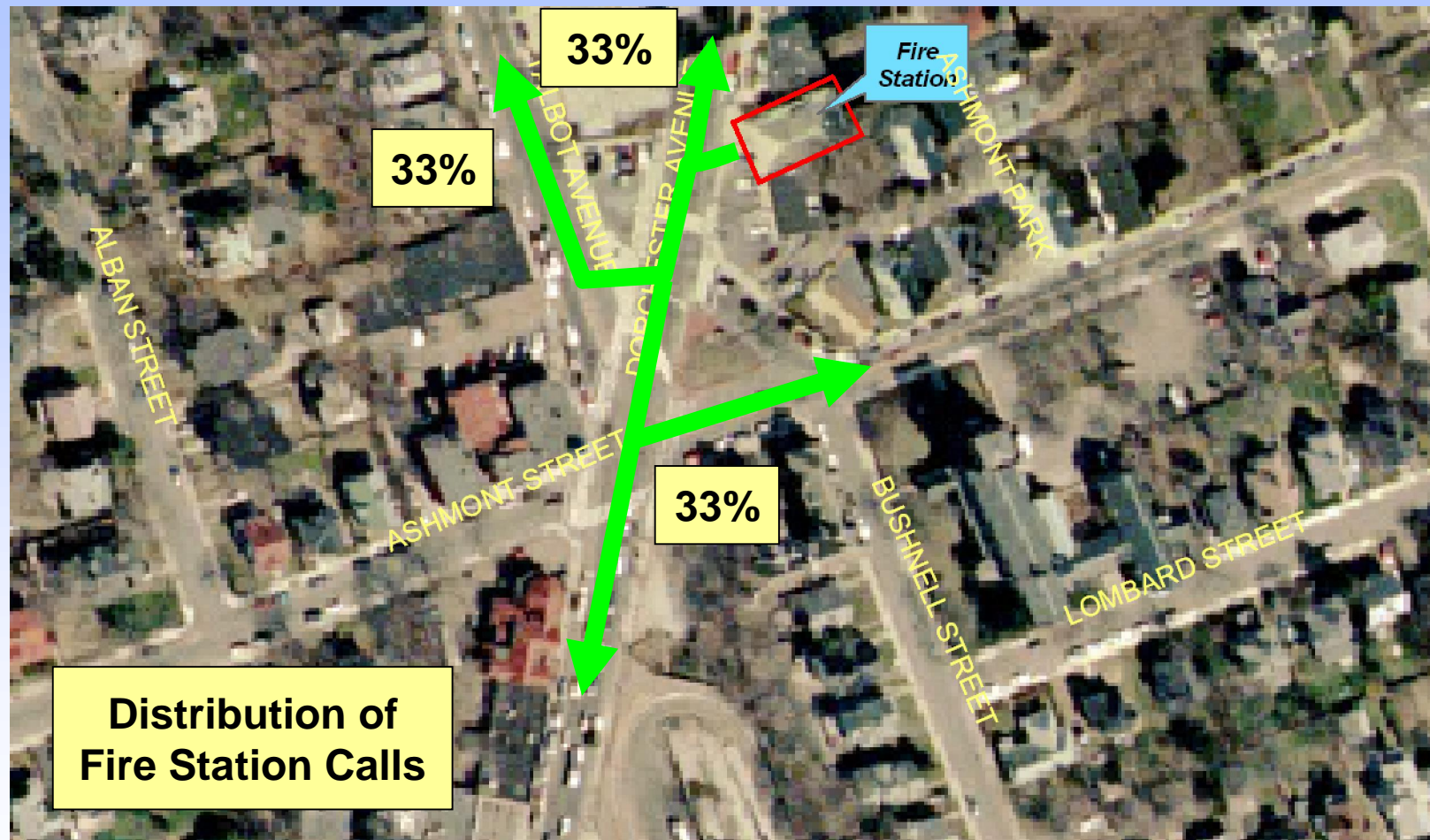
- Ø Met with Fire Station Captain to Review Station Operations
- Ø Performed Detailed Traffic Analysis (Existing and 2016)
- Ø Refined Two Schemes into Functional Designs
- Ø Developed Conceptual Streetscapes
- Ø Comparison with Enhanced Existing Condition





Peabody Square Improvement Project

Fire Station Operation



Station responds to approximately 3,000 calls per year





Peabody Square Improvement Project

Fire Station Operation Issues



- Ø Location of stop lines
- Ø Space to pull out / back up fire trucks
- Ø Design of curb radii for fire truck movements
- Ø Signal preemption for fire station operation





Peabody Square Improvement Project

Scheme Similarities

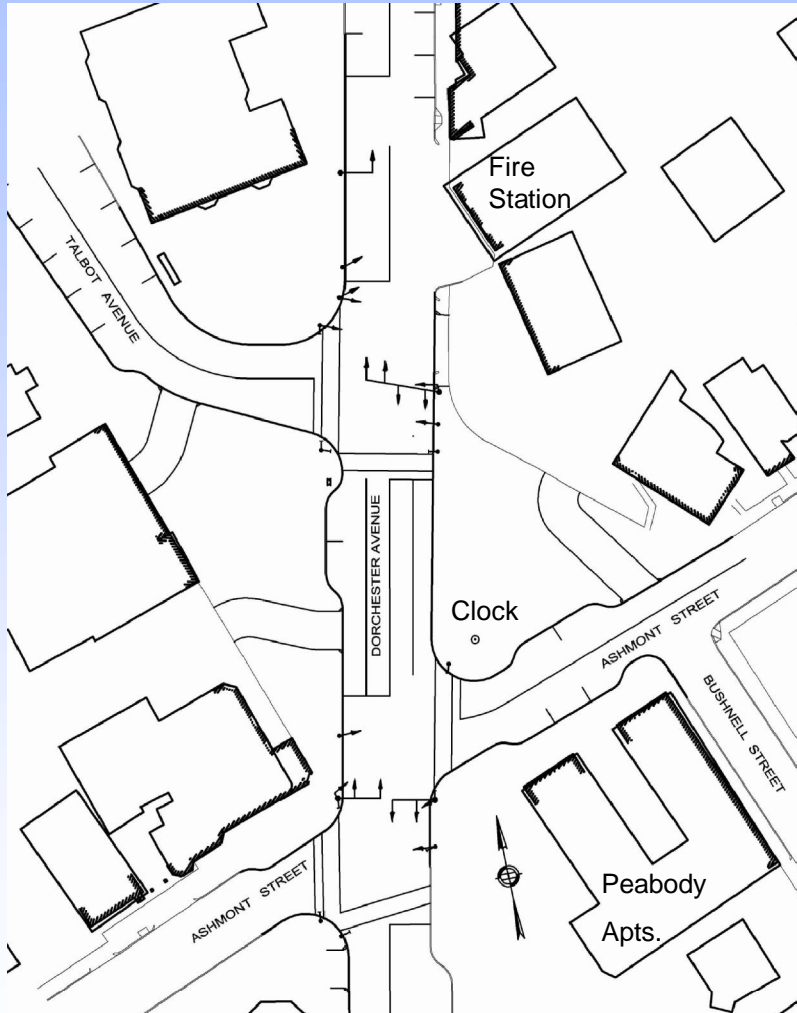
- ü Simplify Square layout/eliminate islands and many conflict points
- ü Reduce number and length of pedestrian crossings (90' to 55')
- ü Provide linear streetscape and edge along Dot Avenue
- ü Improve traffic operations/reduces delays (15 – 30 sec/vehicle)
- ü Two signalized intersections / fire station preemption
- ü Reduce vehicle speeds through the Square
- ü Provide gateway to Square and ample outdoor public spaces
- ü Long driveways across public spaces (40' to 60')
- ü Potential reduction of on-street parking





Peabody Square Improvement Project

Scheme 2



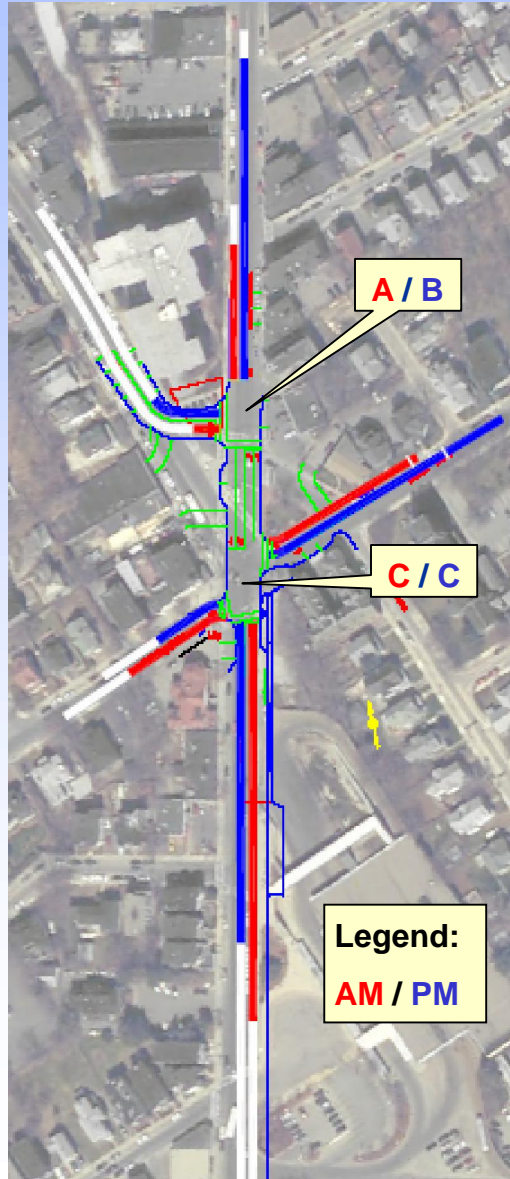
- ü Talbot Street right angle intersection
- ü Four-lane cross-section on Dot Ave
- ü Left-turn lanes on northbound and southbound Dot Ave.
- ü Store 24 driveway within intersection
- ü Two-lane approach for Talbot Ave





Peabody Square Improvement Project

Scheme 2/Double Intersection – 2016 Traffic Analysis



Overall delay decreases

Ø 60% in AM Peak Hour (~30 sec/veh)

Ø 36% in PM Peak Hour (~15 sec/veh)

95th Percentile Queues:

Ø Most Improved: Talbot Ave.
(90% reduction in AM Peak)

Ø Significantly Improved: Dot Ave.
NB
(40 - 45% reduction)

Ø Least Improved: Ashmont St.
WB





Peabody Square Improvement Project

Scheme 2



- ü Opportunity for large gathering spaces
- ü New green spaces on both sides of Dot Ave.
- ü Possible outdoor café
- ü Screening of parking lots
- ü Street trees
- ü Furnishings



Peabody Square Improvement Project

Scheme 2/Double Intersection



üPros

- Visually effective Dot Ave. streetscape
- Balance of 3 nodes/ample public space
- Screens parking lots
- Significant reduction of Talbot Ave. queues
- May discourage Talbot to Ashmont move

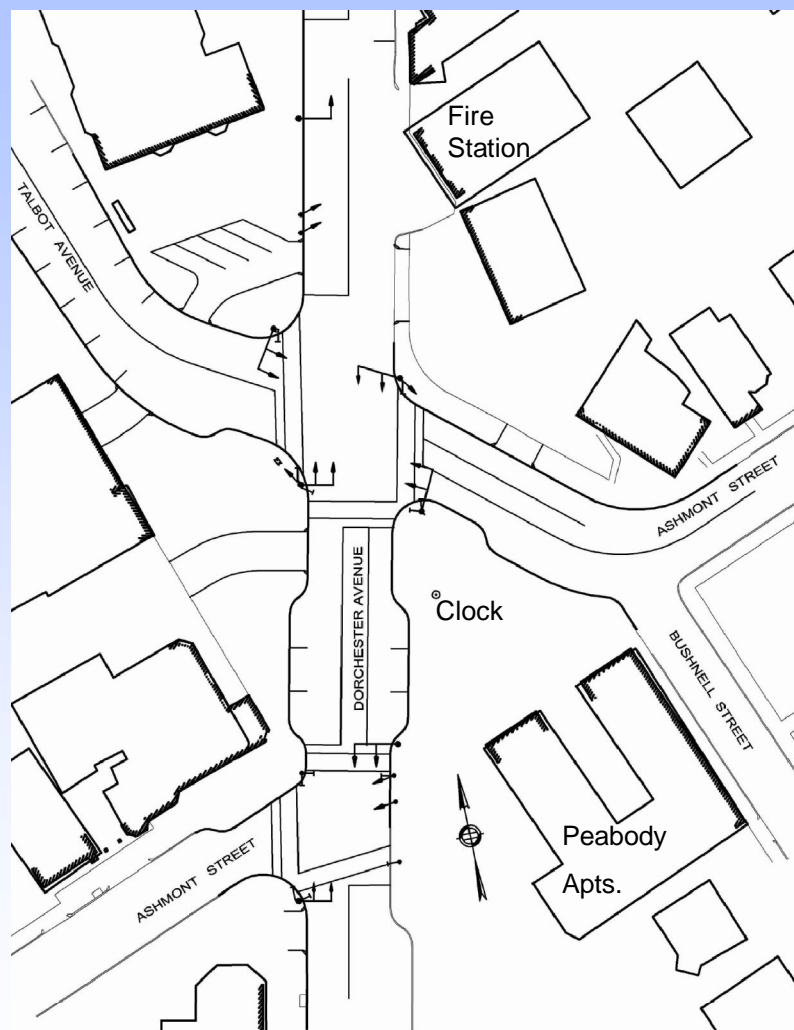
x Cons

- Heavy demand between Ashmont St. and Talbot Ave.
- Ashmont St. WB queues not improved



Peabody Square Improvement Project

X Scheme



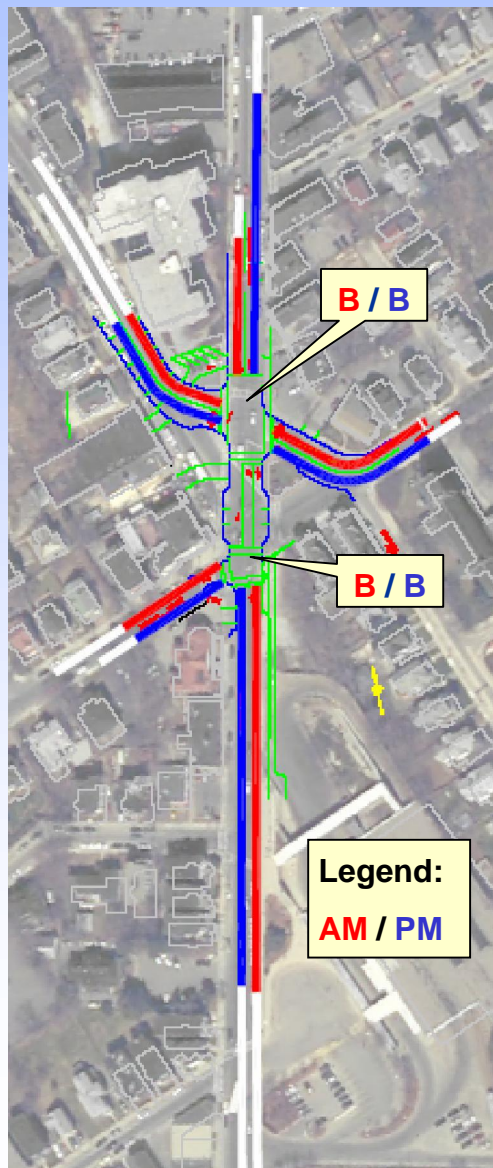
- ü Talbot/Ashmont aligned
- ü Three-lane cross-section for Dot Ave. with northbound left-turn lane
- ü Three-lane approach for Ashmont St. westbound with left/right turn-lanes
- ü Left-turn lane northbound Dot Ave.
- ü Possible off-street parking area





Peabody Square Improvement Project

X Scheme – 2016 Traffic Analysis



Overall delay decreases

Ø 77% in AM Peak Hour (~35 sec/veh)

Ø 57% in PM Peak Hour (~20 sec/veh)

95th Percentile Queues:

Ø Balanced improvement across all approaches

Ø Significantly Improved:
Talbot Ave. (50% reduction)
Dot Ave. NB (35 - 40% reduction)

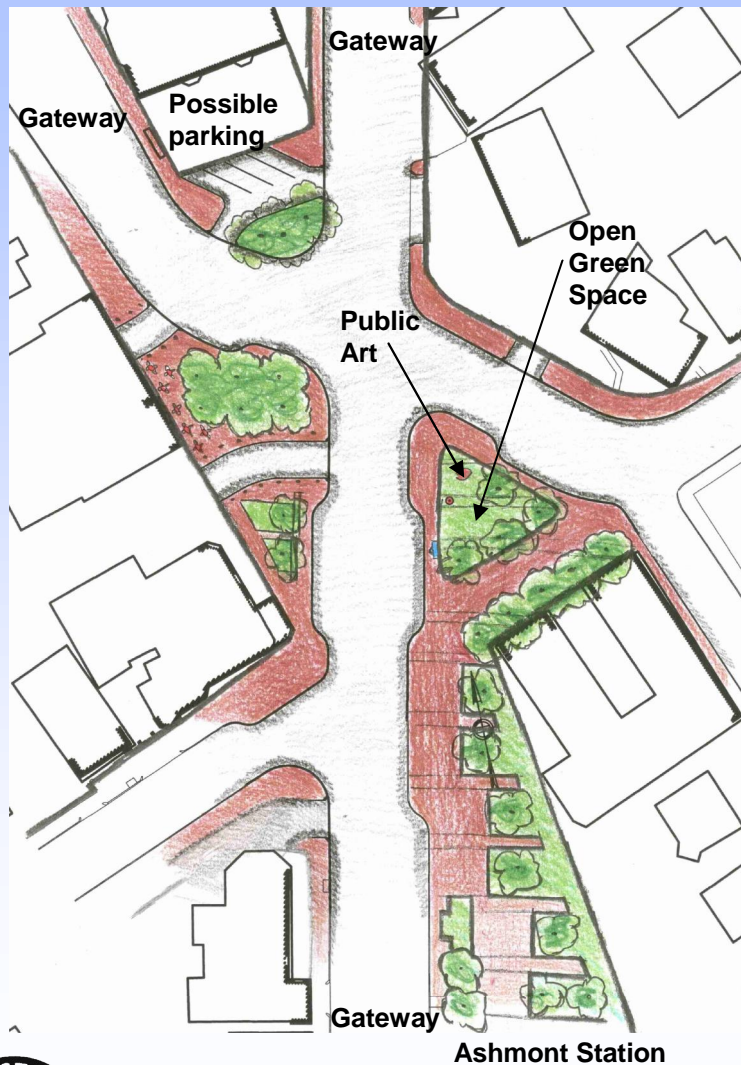
Ø Least Improved: Ashmont St. WB





Peabody Square Improvement Project

X Scheme



- ü Continuation of Ashmont Station plaza
- ü Enhanced green space around clock
- ü Paving pattern to compliment Ashmont Station plaza
- ü Opportunity for gathering spaces
- ü New trees for shade and scale
- ü Possible outdoor café
- ü Furnishings





Peabody Square Improvement Project

X Scheme



ü Pros

- Reduced conflict points/improved safety
- Square is connected to Ashmont Station plaza
- Creates ample public space on both sides of Dot Ave.
- Ashmont/Talbot maneuver improved
- May discourage Ashmont Street eastbound move (Traffic on Dot Ave)

x Cons

- Ashmont Street connection interrupted
- Does not screen parking lots
- Square absorbed by Ashmont Station plaza





Peabody Square Improvement Project

Streetscape Components

- **Paving**
 - Sidewalks/plazas and crosswalks
- **Lighting**
 - City standard street lighting
 - Special/accent lighting
- **Furniture**
 - Benches, trash receptacles, bollards, tree grates, pennants, bike racks
- **Landscaping**
 - Trees/shrubs
- **Art**
 - Integrate into streetscape
 - Sculpture, exhibit
- **Maintenance**

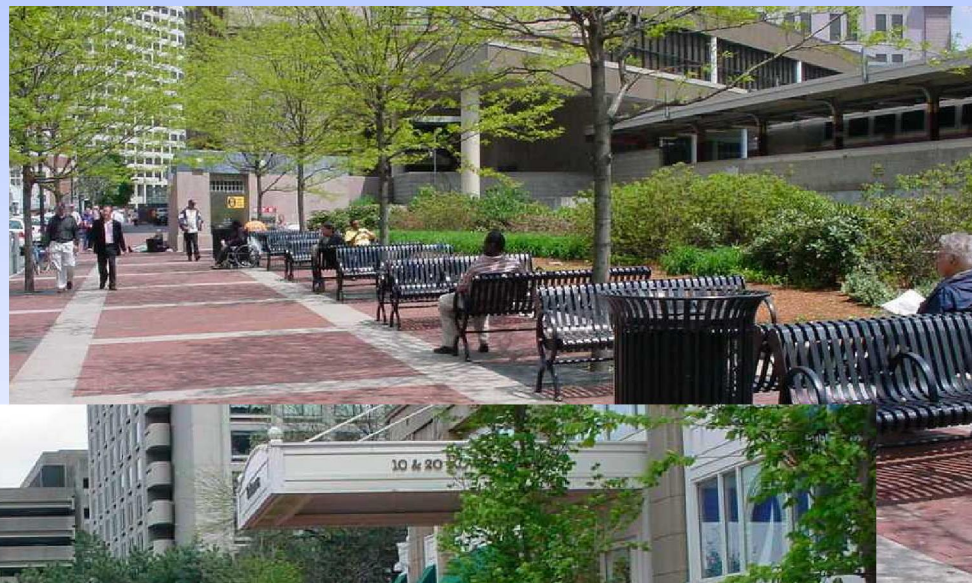
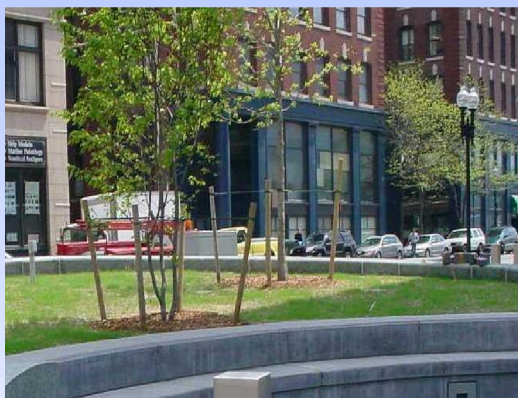




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Streetscape Materials Palette

- Sidewalk, plaza, and crosswalk paving

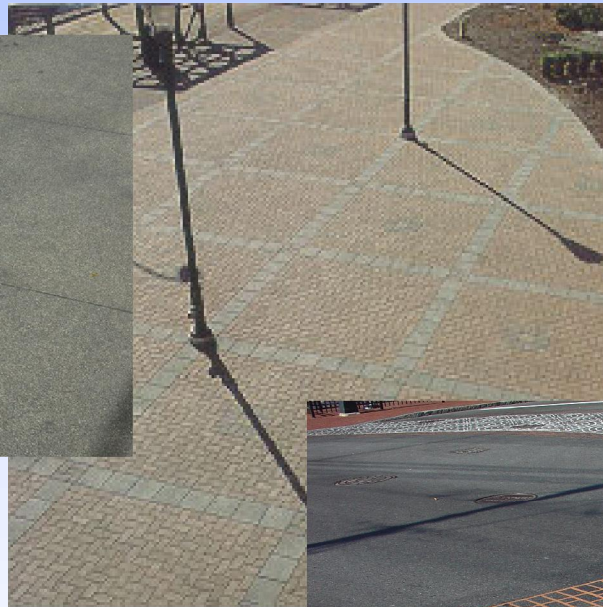




Peabody Square Improvement Project

Streetscape Materials Palette

- Sidewalk/Crosswalk Materials

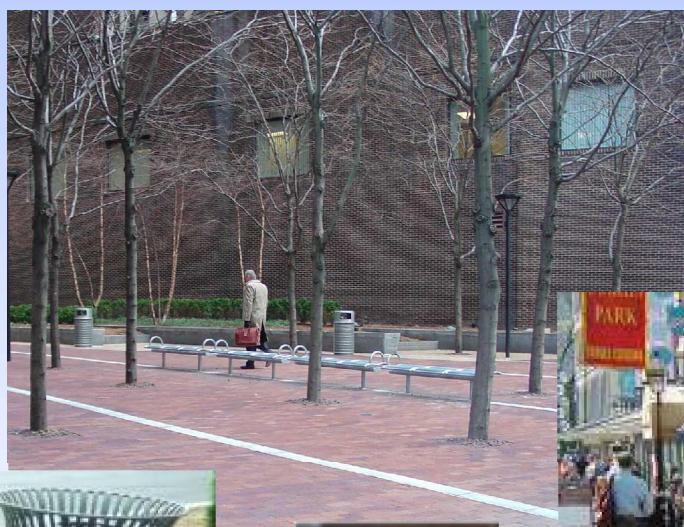




Peabody Square Improvement Project

Streetscape Materials Palette

- Benches, trash receptacles, bollards, tree grates, pennants





Peabody Square Improvement Project

Streetscape Materials Palette

- City standard street lighting
- Special/Accent Lighting



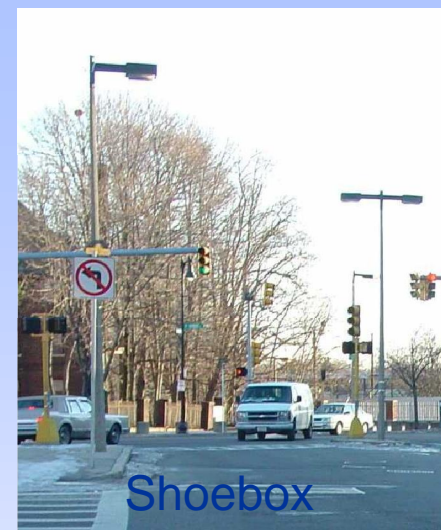
Bishop's Crook



Acorn



Pendant



Shoebox



Cobra Head





Peabody Square Improvement Project

Streetscape Materials Palette

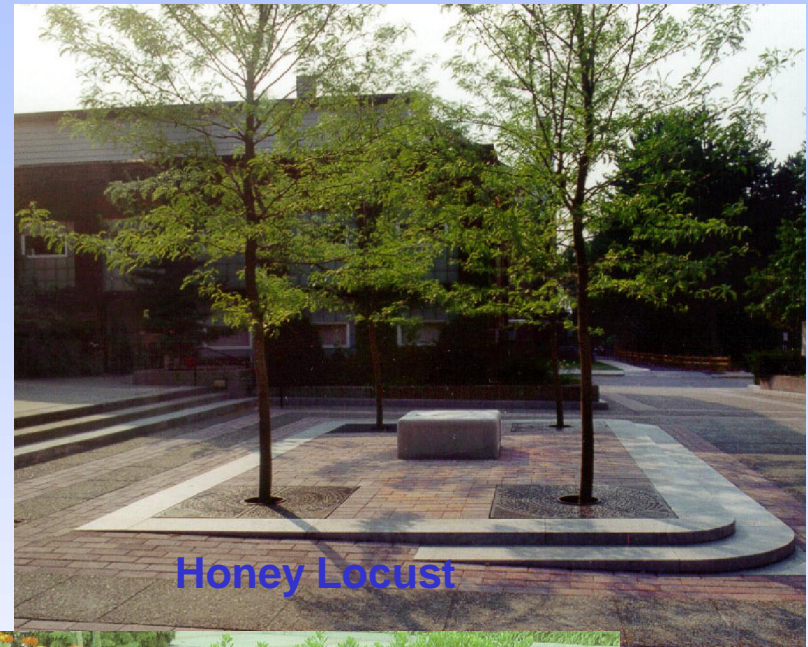
- Trees/shrubs/flowers



Red Maple



Daylilies



Honey Locust



Ilex





Peabody Square Improvement Project

Public Input/Discussion



Scheme 2



X Scheme





Peabody Square Improvement Project

Scheme 2

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Peabody Square Improvement Project

What's Next

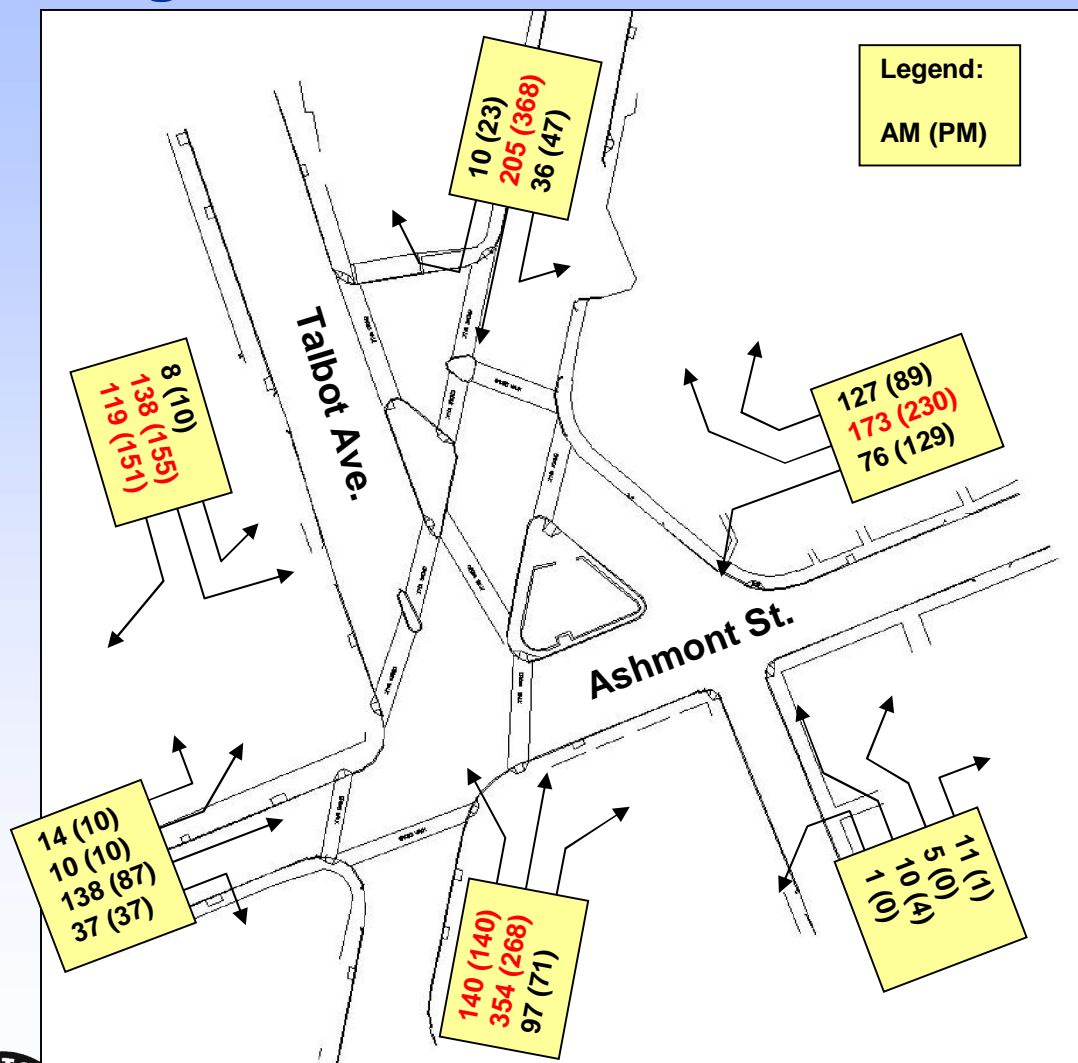
- Ø Develop preferred option to Preliminary Design level
- Ø Coordinate with ongoing initiatives
- Ø Specific discussions with relevant agencies, abutters
- Ø Third public meeting in June
- Ø Preliminary design approval at the next meeting





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Existing Conditions: Traffic Volumes by Movement

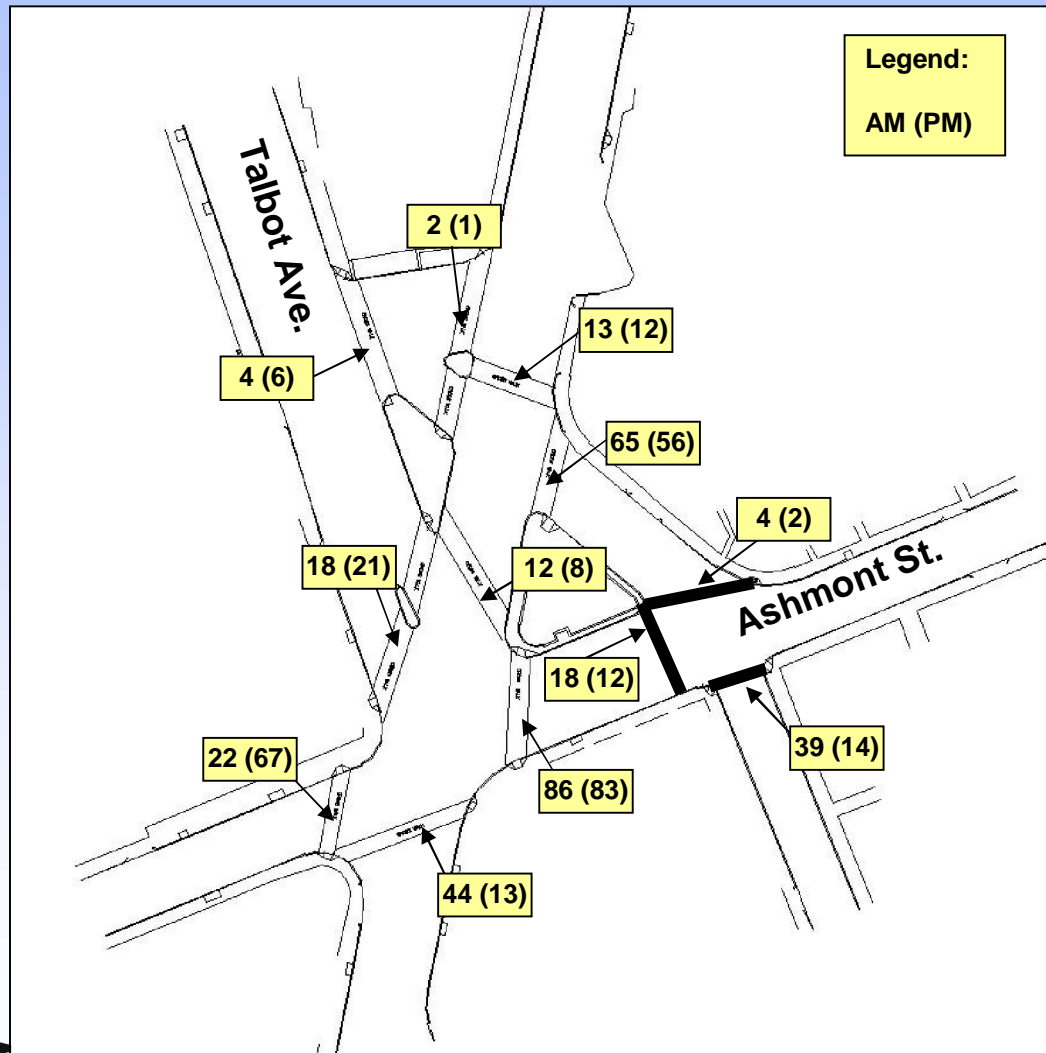


- Ø Dot Ave is heaviest corridor, followed by Ashmont Street
- Ø Heavy movement from Ashmont Street to Talbot Avenue



Peabody Square Improvement Project

Existing Conditions: Pedestrian Volumes by Crossing



- Ø Pedestrian volumes during peak hours
- Ø Dot Ave is heaviest pedestrian corridor
- Ø Heavy morning crossing from Ashmont westbound





Peabody Square Improvement Project

Core Project Needs

- Ø Revitalize Square to promote commercial and community activity
- Ø Create a safe, attractive, and accessible environment for all users
- Ø Simplify roadway configuration and reduce points of conflict
- Ø Enhance sidewalks and provide pedestrian-scale amenities
- Ø Provide for placemaking and area gateway

